

AMENDMENTS TO THE CLAIMS

1. **(Currently Amended)** A Sub Sequence Net (SN), comprising ~~Sub-Sequence Net (Sub-SN)~~, which comprises:
 - a ~~sequence net~~ an SN including N+1 branch programs respectively running on N+1 computers and a distributed data tokens token; ~~[[and]]~~
N+1 return instructions wherein each of the N+1 branch programs includes a return instruction, and wherein N is a positive integer.
2. **(Currently Amended)** The Sub SN of Claim 1, wherein a call instruction of ~~[[said]]~~ the Sub SN is a single machine SN calling instruction.
3. **(Currently Amended)** The Sub SN of Claim 2, wherein ~~[[said]]~~ the call instruction calls ~~[[said]]~~ the Sub SN by activating a ~~ealling~~ Sub SN calling device.
4. **(Currently Amended)** The Sub SN of Claim 3, wherein ~~said calling~~ the Sub SN calling device comprises a calling bus device for establishing a connection between ~~[[said]]~~ a call position of a single machine and ~~[[said]]~~ the Sub SN.
5. **(Currently Amended)** The Sub SN of Claim 4, wherein ~~said calling~~ the Sub SN calling device is ~~initiated~~ activated by ~~[[a]]~~ the single machine ~~sequence-net-call~~ SN calling instruction;
~~whose call parameters is transmitted~~ a calling parameter of the single machine SN calling instruction is broadcasted to N+1 units associated with the N+1 computers and is by broadcasting, the call parameters are used as a ~~[[call]]~~ calling entry address of the N+1 branch programs of ~~[[said]]~~ the Sub SN; ~~[[,]]~~
an on-site protection is performed when each of the N+1 branch programs is entered; are on site protection and
each of the N+1 branch programs is exited by the return instruction ~~exit by return instructions.~~

6. **(Currently Amended)** The Sub SN of Claim 4, wherein ~~said calling the~~ the Sub SN calling device comprises an activating device for transferring the single machine SN calling instructions instruction from ~~a sequence net call instruction of a serial~~ a serial single machine to the parallel N+1 ~~parallel~~ branch programs.
7. **(Currently Amended)** The Sub SN of Claim 4, wherein ~~said means for calling the~~ the Sub SN calling device comprises a call contention device for processing a ~~number~~ plurality of ~~requests simultaneously occurred requests.~~
8. **(Currently Amended)** The Sub SN of Claim 4, wherein ~~said means for calling the~~ the Sub SN calling device comprises ~~an interrupt initiation a~~ a device for transmitting a calling parameter from serial to parallel and for activating parallel interrupts call parameters from serial program to parallel programs, and a paralleled interrupt initiation device.
9. **(Currently Amended)** A Sub Sequence Net (SN) ~~Sub-Sequence Net (Sub-SN)~~ calling system for calling the Sub SN according to Claim 1, which comprises comprising:
 - ~~a plurality of N+1~~ a plurality of N+1 computers, for running the N+1 branch programs of the Sub SN;
 - ~~a plurality of sequence net call N+1 SN calling devices,~~ a plurality of N+1 SN calling devices, for handling call contentions, ~~saving sequence net call~~ storing SN calling parameters, and identifying SN calling sequence net call instructions; and
 - a group of buses, for connecting the ~~sequence net call~~ SN calling devices together, the group of buses comprising:
 - a call ~~initiating~~ activating bus, for receiving a ~~initiating~~ an activating level sent by one of the SN calling devices ~~call device of said sequence net;~~
 - ~~a group of data bus~~ bus buses; and
 - a shared clock bus.

10. **(Currently Amended)** The Sub SN ~~[[call]]~~ calling system of Claim 9, wherein each of the SN calling devices ~~sequence net call device~~ comprises:

a call ~~request~~ requesting device, for receiving an SN calling instruction ~~sequence net call instructions~~, generating a initiating ~~an activating~~ level ~~[[in]]~~ at a next clock pulse, and delivering the ~~initiating~~ activating level to the call activating ~~said initiating~~ bus;

a call contention device, for arbitrating a call of ~~[[the]]~~ a highest priority as valid;

a call ~~parameters~~ parameter and interrupt ~~device~~ devices, for determining a source of ~~sequence net call parameters~~ an SN call parameter based on ~~outputs~~ an output of ~~[[said]]~~ the call contention ~~devices~~ device, and sending ~~[[a]]~~ an interrupt level to an associated computer ~~via said bus~~.

11. **(Currently Amended)** The Sub SN ~~[[call]]~~ calling system of Claim 10, wherein each of the SN calling ~~said sequence net call~~ device further comprises a registering and comparing ~~device~~, for storing a local weight register of this machine, and comparison device ~~for saving~~ for comparing the local weight of this machine with ~~the highest~~ a global weight of requests in order to determine ~~if this machine~~ whether the respective SN calling device is the source of the SN calling parameter ~~sequence net call parameters~~.

12. **(Currently Amended)** The Sub SN ~~[[call]]~~ calling system of Claim 11, wherein the registering and comparing device ~~further comprises said register and comparison devices~~ further comprising a system grade register and a request grade register, when ~~said sequence net call~~ the SN calling device receives a grade calling request ~~an request of grade call~~, if ~~[[the]]~~ an output of ~~[[said]]~~ the request grade register is greater than ~~[[the]]~~ an output of ~~[[said]]~~ the system grade register, the registering and comparing device ~~generates a~~ generates a permission signal to the call requesting device, so that ~~[[said]]~~ the call ~~request~~ requesting device generates ~~a initiation~~ the activating level to ~~said initiation~~ the activating bus, and when ~~whereas~~ the output of ~~[[said]]~~ the request grade register is smaller than or equal to the output of ~~[[said]]~~ the system grade register, ~~the said register and comparison devices do~~ the registering and comparing device ~~does not generate~~ does not generate ~~[[said]]~~ the permission signal and thus no ~~initiation~~ activating level is generated.

13. **(Currently Amended)** The Sub SN call system of Claim 10, wherein the ~~said register and comparison devices~~ registering and comparing device further comprises a sequence ~~[[call]]~~ calling register (named next register) indicating ~~[[the]]~~ a next sequence calling device number right of sequence call, when ~~said sequence net call~~ the SN calling device receives a sequence ~~[[call]]~~ calling request, ~~[[the]]~~ an output of said next the sequence calling register is compared with a local device number said right of this machine (usually number of this machine), if the comparison result ~~indicates that the output of said next register and said right of this machine is same~~, a initiation is "the same," the activating level is generated, otherwise, ~~a initiation~~ no activating level is ~~[[not]]~~ generated.
14. **(Currently Amended)** A method for calling ~~Sub-Sequence~~ the Sub Sequence Net (Sub SN) of Claim 1 using the Sub SN calling device of Claim 9, comprising ~~which comprises:~~ sequence net including N+1 programs and a distributed data token structure; and N+1 return instructions, wherein said Sub SN includes a plurality of computers and a plurality of sequence net call devices; the call instruction calls said Sub SN by activating at least one sequence net call device of said sequence net call devices, wherein the method comprises the following steps:
- a) ~~said sequence net call~~ one or more SN calling devices instructions for calling the sequence net receiving one or more SN calling instructions from the plurality of one or more computers, respectively;
 - b) each of the SN calling devices which receives the SN calling instructions sending an activating sequence net call device of said received sequence net call instruction sends a initiation level via a initiation the activating bus to all the other SN calling sequence net call devices;
 - c) when each of the SN calling devices which receive the SN calling instructions sequence net call device of said receiving sequence net call instruction detects said initiation the activating level on the activating existed in said initiation bus, each of the SN calling devices which receive the SN calling instructions sending its local sequence net call device of said receiving sequence net call instruction sends the weight of this machine to ~~[[said]]~~ the data bus,[[;]] then [[the]] a global weight of entire system formed on the [[said]]

data bus ~~[[is]]~~ being written in a temporary register of each of the SN calling devices ~~by said sequence net call device~~; and

d) each of the SN calling devices which receive the SN calling instructions ~~comparing a sequence net call device of said receiving sequence net call instruction~~ ~~compares the~~ highest valid bit (=1) ~~of register (hereinafter as HVBOR)~~ of the temporary register with ~~[[the]]~~ its local weight of this machine, if the comparison result is "the same," the call of the respective SN calling said sequence net call device is valid, otherwise, the call of the respective calling device is invalid, ~~for valid comparison and invalid for an invalid comparison~~; at least one call from one of the SN calling devices which receive an SN calling instructions ~~is made by sequence net call device of receiving sequence net call instruction~~ will be valid.

15. **(Currently Amended)** The call method of Claim 14, wherein ~~[[the]]~~ step ~~[[b]]~~ c) comprises ~~the steps of an~~ "or" operation of the local weights sent of machines sending by the SN calling devices which receive SN calling instructions ~~sequence net call device of said received sequence net call instruction~~; to produce form the global weight of entire system.

16. **(Currently Amended)** The call method of Claim 14, further comprising the following step between step a) and step b): at least one computer of the N+1 computers sending a grade ~~[[call]]~~ calling instruction for supporting different importance grades of system ~~is generated by at least one computer~~.

17. **(Currently Amended)** The call method of Claim 16, further comprising ~~[[the]]~~ a step of ~~[[said]]~~ the at least one computer writing a request grade of the called Sub SN into ~~[[the]]~~ a request grade register of ~~said sequence net call~~ the SN calling device ~~prior to said~~ before the at least one computer sending said sends the grade ~~[[call]]~~ calling instruction.

18. **(Currently Amended)** The call method of Claim 17, further comprising ~~the steps~~ a step of comparing the ~~[[said]]~~ request grade with ~~the HVBOR of~~ a system grade, wherein if the request grade is lower than or equal to said ~~current~~ the system grade, then ~~[[said]]~~ the grade ~~[[call]]~~ calling request is not accepted, and if the request grade is higher than ~~[[said]]~~ the

current system grade, then ~~[[said]]~~ the grade ~~[[call]]~~ calling request is accepted, and the ~~initiation~~ activating level is generated at ~~[[the]]~~ step b) by the ~~sequence-net-call~~ SN calling device.

19. **(Currently Amended)** The call method of Claim 18, further comprising the following steps between ~~[[the]]~~ step b) and ~~[[the]]~~ step c):

b1) on the activating said-initiation bus, an "or" operation being performed on the activating levels from the SN calling devices which receive the SN grade calling instructions ~~said-initiation-level-of-sequence-net-call-device-of-sequence-net-grade-call-instruction~~ ~~received-is-operated~~ and the result of the "or" operation ~~[[is]]~~ being delivered to all the said sequence-net-call SN calling devices;

b2) when each of the SN calling devices which receive the SN grade calling instructions ~~sequence-net-call-device-of-said-received-sequence-net-call-instruction~~ detects an activating that-a-initiation level exists in-said-initiation on the activating bus, each of the SN calling devices which receive the SN ~~the-said-sequence-net-call-device-control-of-received-sequence-net-grade-calling-instructions~~ sending its local call-instruction ~~send-a request grade of this-machine~~ to ~~[[said]]~~ the data bus, then ~~entire-system~~ a global request grade formed on the of-said data bus ~~[[is]]~~ being written into the temporary register by each of the SN calling via-said-all-sequence-net-call devices;

b3) each of the SN calling devices which receive the SN grade calling instructions comparing the global request in the HVBOR-of temporary register is-compared with its local request grade by-sequence-net-call-device-of-said-received-sequence-net-grade-call-instruction, and if the comparison result is "the same," the grade call of the SN calling device is valid ~~the-equality-of-comparison-denotes-a-valid-grade-call-of-the-sequence-net-call-device;~~ and

b4) ~~the-HVBOR-of-said~~ writing the highest bit of the temporary register is-written into ~~[[the]]~~ a system grade register of each of the SN calling devices ~~said-all-sequence-net-call-device~~ so that a new ~~HVBOR-of-the~~ system grade is recorded.

20. **(Currently Amended)** The call method of Claim 14, further comprising the following step between step a) and step b): at least one computer of the N+1 plurality of computers sends sending a sequence [[call]] calling request instruction of the SN for supporting ordered sequenced events of a program processing and a complicated program structures structure.

21. **(Currently Amended)** The call method of Claim 20, further comprising [[the]] a step of designating a next sequence calling device number in a call by writing the next register of each of the SN calling all sequence net call devices.

22. **(Currently Amended)** The call method of Claim 21, further comprising the following steps between [[the]] step b) and [[the]] step c):

b') each of the SN calling said multiple sequence net call devices receive the a request of sequence [[call]] calling request instructions from [[said]] the at least one computer; and

b'') comparing the next sequence calling device number register (usually the next number of machine) with the right (usually the number) of this machine a local device number, if the comparison result is "the same," the [[said]] sequence [[call]] calling request instruction is allowed for an affirmative comparison and the activating level is sent to the activating bus, otherwise, the device number of the sequence call request of sequence net call device should be is invalid and no initiation activating level is will be sent to said initiation the activating bus.

23. **(Currently Amended)** The call method of Claim 22, further comprising the following steps between [[the]] step c) and [[the]] step d):

c') the SN calling devices which receive the sequence calling request instructions sending sequence call feature data is sent to the data bus by sequence net call device which has received sequence net call instruction;

c'') the SN calling devices which receive the sequence calling request instructions writing the content on the data on data bus is written to a into the temporary register by sequence net call device of said received sequence net sequence call instruction, and checking the data in the temporary register for determining whether a [[the]] sequence

[[call]] calling feature is satisfied, if it is satisfied, it is determined there is a ~~examined for~~
~~checking the existence of~~ grade call, i.e. ~~the validity of said~~ otherwise, it is determined there
is a sequence call.

24. (New) The Sub SN of Claim 1, wherein the distributed data token comprises a consistency token instruction, a source data token instruction, and a target data token instruction, wherein the source data token instruction and the target data token instruction are used by the 1st to Nth branch programs, and the consistency token instruction is used by the N+1th branch program.